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December 22, 2003

CERTIFICATE OF MAILING 37 C.F.R. 1.8

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December 22, 2003

Date

Steven L. Highlander

MS DD

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

RE: *U.S. Patent Application No. 10/648,978 entitled "ACTIVATION OF LYMPHOCYTE POPULATIONS EXPRESSING NKG2D USING ANTI-NKG2D ANTIBODIES AND LIGAND DERIVATIVES" – Thomas Spies and Veronika Spies*
Our reference: FHCC:010US

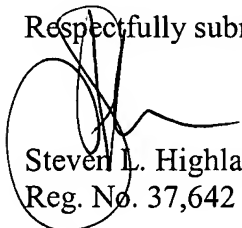
Sir:

Enclosed for filing in the above-referenced patent application is an Information Disclosure Statement, Form PTO-1449, and references B1-B2 and C1-C22.

No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to the enclosed materials, the Commissioner is authorized to deduct the appropriate fees from Fulbright & Jaworski Deposit Account No.: 50-1212/FHCC:010US.

Please date stamp and return the enclosed postcard evidencing receipt of these materials.

Respectfully submitted,



Steven L. Highlander
Reg. No. 37,642

SLH/kmv

Encl.: as noted



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Thomas Spies
Veronika Spies

Serial No.: 10/648,978

Filed: August 27, 2003

For: ACTIVATION OF LYMPHOCYTE
POPULATIONS EXPRESSING NKG2D
USING ANTI-NKG2D ANTIBODIES
AND LIGAND DERIVATIVES

Group Art Unit: 1644

Examiner: Unknown

Atty. Dkt. No.: FHCC:010US

CERTIFICATE OF MAILING
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December 22, 2003

Date

Steven L. Highlander

INFORMATION DISCLOSURE STATEMENT

MS DD

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

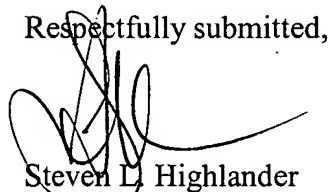
In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

In accordance with 37 C.F.R §§ 1.97(g), (h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in accordance with 37 C.F.R § 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement, however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Commissioner is authorized to deduct the appropriate fees from Fulbright & Jaworski Deposit Account No.: 50-1212/FHCC:010US.

Applicants respectfully request that the listed documents be made of record in the present case.

Respectfully submitted,



Steven L. Highlander
Reg. No. 37,642
Attorney for Applicants

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600 Congress Avenue, Suite 2400
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Date: December 22, 2003

Form PTO-1449 (modified)

Atty. Docket No.

Serial No.

FHCC:010US

10/648,978

List of Patents and Publications for Applicant's

Applicant

Thomas Spies

Veronika Spies

INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Filing Date:

August 27, 2003

Group:

1644

U.S. Patent Documents

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Foreign Patent Documents

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Other Art

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U.S. Patent Documents

| Exam. Init. | Ref. Des. | Document Number | Date | Name | Class | Sub Class | Filing Date of App. |
|-------------|-----------|-----------------|------|------|-------|-----------|---------------------|
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Foreign Patent Documents

| Exam. Init. | Ref. Des. | Document Number | Date | Country | Class | Sub Class | Translation Yes/No |
|-------------|-----------|-----------------|---------|---------|-------|-----------|--------------------|
| | B1 | WO 92/17198 | 3/27/92 | PCT | | | |
| | B2 | WO 01/71005 | 3/26/01 | PCT | | | |

Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

| Exam. Init. | Ref. Des. | Citation |
|-------------|-----------|--|
| | C1 | Azuma <i>et al.</i> , "CD28 T lymphocytes-antigenic and functional properties," <i>J. Immunol.</i> , 150(4):1147-1159, 1993. |
| | C2 | Bauer <i>et al.</i> , "Activation of NK cells and T cells by NKG2D, a receptor for stress-inducible MICA," <i>Science</i> , 285(5428):727-729, 1999. |
| | C3 | Billadeau <i>et al.</i> , "NKG2D-DAP10 triggers human NK cell-mediated killing via a Syk-independent regulatory pathway," <i>Nat. Immunol.</i> , 4(6):557-564, 2003. |
| | C4 | Chalupny <i>et al.</i> , "ULBP4 is a novel ligand for human NKG2D," <i>Biochem. Biophys. Res. Commun.</i> , 305:129-135, 2003. |
| | C5 | Cosman <i>et al.</i> , "ULBPs, novel MHC class I-related molecules, bind to CMV glycoprotein UL16 and stimulate NK cytotoxicity through the NKG2D receptor," <i>Immunity</i> , 14:123-133, 2001. |
| | C6 | Das <i>et al.</i> , "MICA engagement by human Vgamma2Vdelta2 Tcells enhances their antigen-dependent effector function," <i>Immunity</i> , 15:83-93, 2001. |
| | C7 | Diefenbach <i>et al.</i> , "Ligands for the murine NKG2D receptor: expression by tumor cells and activation of NK cells and macrophages," <i>Nat. Immunol.</i> , 1:119-126, 2000. |
| | C8 | Diefenbach <i>et al.</i> , "Rae1 and H60 ligands of the NKG2D receptor stimulate tumour immunity," <i>Nature</i> , 413:165-171, 2001. |

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DATE CONSIDERED:

EXAMINER: INITIAL IF REFERENCE CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

Form PTO-1449 (modified)

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INFORMATION DISCLOSURE STATEMENT

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Atty. Docket No.

FHCC:010US

Serial No.

10/648,978

Applicant

Thomas Spies

Veronika Spies

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August 27, 2003

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1644

U.S. Patent Documents

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Foreign Patent Documents

See Page 1

Other Art

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Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

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| | C9 | Groh <i>et al.</i> , "Cell stress-regulated human major histocompatibility complex class I gene expressed in gastrointestinal epithelium," <i>Proc. Natl. Acad. Sci., USA</i> , 93:12445-12450, 1996. |
| | C10 | Groh <i>et al.</i> , "Costimulation of CD8 α T cells by NKG2D via engagement by MIC induced on virus-infected cells," <i>Nature Immunology</i> , 2(3):255-260, 2001. |
| | C11 | Groh <i>et al.</i> , "Recognition of stress-induced MHC molecules by intestinal epithelial $\gamma\delta$ T cells," <i>Science</i> , 279:1737-1740, 1998. |
| | C12 | Groh <i>et al.</i> , "Broad tumor-associated expression and recognition by tumor-derived $\gamma\delta$ T cells of MICA and MICB," <i>Proc. Natl. Acad. Sci., USA</i> , 96:6879-6884, 1999. |
| | C13 | Groh <i>et al.</i> , "Tumour-derived soluble MIC ligand impair expression of NKG2D and T-cell activation," <i>Nature</i> , 419:734-738, 2002. |
| | C14 | Houchins <i>et al.</i> , "DNA sequence analysis of NKG2, a family of related cDNA clones encoding type II integral membrane proteins on human natural killer cells," <i>J. Exp. Med.</i> , 173:1017-1020, 1991. |
| | C15 | Kubin <i>et al.</i> , "ULBP1, 2, 3: novel MHU class I-related molecules that bind to human cytomegalovirus glycoprotein UL16, activate NK cells," <i>European Journal of Immunology</i> , 31(5):1428-1437, 2001. |
| | C16 | Li <i>et al.</i> , "Crystal structure of the MHC class I homolog MIC-A, a $\gamma\delta$ T cell ligand," <i>Immunity</i> , 10:577-584, 1999. |
| | C17 | Pende <i>et al.</i> , "Role of NKG2D in tumor cell lysis mediated by human NK cells: cooperation with natural cytotoxicity receptors and capability of recognizing tumors of nonepithelial origin," <i>Eur. J. Immunol.</i> , 31:1076-1086, 2001. |
| | C18 | Posnett <i>et al.</i> , "Differentiation of human CD8 T cells: implications for in vivo persistence of CD8 ⁺ CD28 ⁻ cytotoxic effector clones," <i>Int. Immunol.</i> , 11:229-241, 1999. |
| | C19 | Roberts <i>et al.</i> , "NKG2D receptors induced by IL-15 costimulate CD28-negative effector CTL in the tissue microenvironment," <i>J. Immunol.</i> , 167:5527-5530, 2001. |
| | C20 | Salih <i>et al.</i> , "Functional expression and release of ligands for the activating immunoreceptor NKG2D in leukemia," 102(4):1389-96, <i>Blood</i> , 2003. |

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Atty. Docket No.

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FHCC:010US

10/648,978

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Veronika Spies

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Other Art

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Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

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| | C21 | Sutherland <i>et al.</i> , "UL16-binding proteins, novel MHC class I-related proteins, bind to NKG2D and activate multiple signaling pathways in primary NK cells," <i>J. Immunol.</i> , 168:671-679, 2002. |
| | C22 | Wu <i>et al.</i> , "An activating immunoreceptor complex formed by NKG2D and DAP 10," <i>Science</i> , 285:730-732, 1999 |

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INFORMATION DISCLOSURE STATEMENT — PTO-1449 (MODIFIED)